

ABSTRACT

Acquisition of a waveform such as a continuous-phase modulation (CPM) waveform is described. In one embodiment of the invention, the invention is directed to a method and apparatus for acquiring a waveform as defined by MIL-STD-188-181B including the preamble of such a waveform at a performance level defined by the standard. The present invention provides solutions to at least four primary issues presented in acquiring a CPM waveform such as the MIL-STD-188-181B compliant waveform. These primary problems include searching for the preamble, determination of the symbol rate, determination of an initial carrier frequency error (Doppler), determination of an initial carrier phase, and determination of the start-of-message to establish an absolute time marker within the waveform.